How Should I Format My Fixed Broadband Subscription Data?

Data Fields

Your Fixed Broadband Subscription data should be arranged in a comma-delimited text file with the following 6 data fields:

Field	Description	Type	Example
Tract	11-digit 2010 census tract code. See More About Census Tracts.	Text	11001006202
Technology of Transmission	Category of technology used for the provision of service by the portion of the connection that terminates at the end-user location (premises). The valid technology codes for this section are: 10 = Asymmetric xDSL 20 = Symmetric xDSL* 30 = Other Copper Wireline (all copper-wire based technologies other than xDSL; Ethernet over copper and T-1 are examples) 40 = Cable Modem 50 = Optical Carrier / Fiber to the end user (Fiber to the home or business end user, does not include "fiber to the curb") 60 = Satellite 70 = Terrestrial Fixed Wireless 90 = Electric Power Line 0 = All Other If different technologies are used in the two directions of information transfer (downstream and upstream), report the connection in the technology category for the downstream direction. *Symmetric xDSL is a set of technologies distinct from Asymmetric xDSL technologies. Symmetric xDSL services are designed to only operate with equal information-transfer rates downstream and upstream—and they are not typically marketed to residential end users. Do not report a DSL connection as Symmetric xDSL when it is merely marketed in a configuration with equal downstream and upstream information-transfer rates.	Integer	10
Downstream Bandwidth	Downstream bandwidth of the service as sold in Mbps. You can enter up to 3 places after the decimal (e.g., 768 kbps would be entered as 0.768). Report the maximum advertised downstream bandwidth of the service. If no downstream bandwidth is mentioned in marketing, enter the bandwidth the customer should expect to receive.	Float	3
Upstream Bandwidth	Upstream bandwidth of the service as sold in Mbps. You can enter up to 3 places after the decimal (e.g., 768 kbps would be entered as 0.768). Report the maximum advertised upstream bandwidth of the service sold with the reported maximum advertised downstream bandwidth. If no upstream bandwidth is mentioned in marketing, enter the bandwidth the customer should expect to receive.	Float	1.5
Connections	Number of connections in this census tract for this combination of technology code, upstream bandwidth and downstream bandwidth	Integer	100
Consumer Connections	Number of connections (no longer percentage of connections!) in this census tract for this combination of technology code, upstream bandwidth and downstream bandwidth provided in consumer-grade service plans. Consider connections to be "consumer" or "residential" when they deliver Internet-access services that are primarily purchased by, designed for, and/or marketed to residential end users.	Integer	57

If we were to place the values in the "Example" column from the table above into a comma-delimited format for upload, they would make a single data row (record) like this:

11001006202, 10, 3, 1. 5, 100, 57

The data row above can be translated as saying that at the time of the "as of" date for the filing, in tract 11001006202, using asymmetric xDSL as the last-mile technology (code 10), the filer has a total of 100 broadband connections in service to end users with advertised bandwidths of 3 Mbps downstream and 1.5 Mbps upstream, of which, 57 connections are to consumers (i.e., residential customers).

Rows must be unique by tract, technology, downstream bandwidth and upstream bandwidth. If a provider has broadband connections in service in a particular census block via two technologies, then the data should contain two records for that census tract. For example, there can only be one row in the data that begins **11001006202, 10, 3, 1. 5, …**

An Example

Say that your company has both consumer and business subscribers to its cable modem broadband service…

(a) assume that your company offers a few flavors of business internet access service: 105 Mbps downstream and 20 Mbps upstream (105/20), 50/10 Mbps and 15/3 Mbps. These services are provided over cable modem. Your company owns the last-mile connection to end users and provisions / equips those connections as broadband.

(b) assume that on the residential side, you offer internet access services advertised as 15/3 Mbps and 6/1.5 Mbps. Again, assume that these services are provided over cable modem. Your company owns the last-mile connection to end users and provisions / equips those connections as broadband.

Your company has connections in service at 15/3 Mbps to both residential and non-residential end users. For this example, let's assume that the service is provisioned the same way to both customer classes, but the difference lies in the way the service is marketed and in the terms of service. Generally, consider connections to be consumer-grade or residential when they deliver Internet-access services that are primarily purchased by, designed for, and/or marketed to residential end users.

Now, let's say that after geocoding your service addresses, you find that your company has connections in service to end users in 3 tracts: 51179010404, 51179010405 and 51179010406. Summing connections by tract, last-mile technology and service bandwidths, you find the following:

Tract Code	Tech Code	MaxAdDn (Mbps)	MaxAdUp (Mbps)	Total Connections	Consumer Connections
51179010404	40	15	3	201	195
51179010404	40	6	1.5	322	322
51179010405	40	15	3	32	32
51179010405	40	6	1.5	2	2
51179010406	40	105	20	5	0
51179010406	40	50	10	20	0
51179010406	40	15	3	45	20

The comma-delimited, plain text file containing these data opened in a text editor like NotePad should look like this:

```
aaa_internet_fbs.csv - Notepad
File  Edit  Format  View  Help
51179010404,40,15,3,201,195
51179010404,40,6,1.5,322,322
51179010405,40,15,3,32,32
51179010405,40,6,1.5,2,2
51179010406,40,105,20,5,0
51179010406,40,50,10,20,0
51179010406,40,15,3,45,20
```
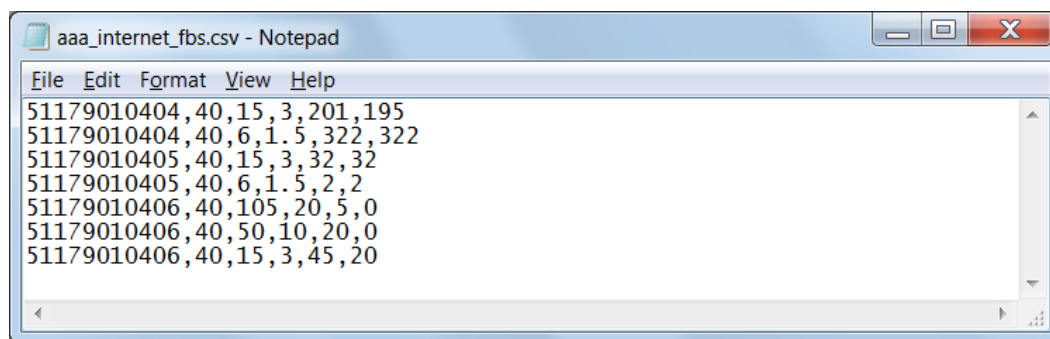
Please note that for this data collection you should directly enter the numbers of residential or consumer connections rather than expressing them as percentages of total connections, as done in the past. We are no longer asking for percentages anywhere in Form 477.